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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/737,033	12/14/2000	Jani Antero Mantyjarvi	617-010002-US(PAR)	7881

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EXAMINER	
LE, NHAN T	

ART UNIT	PAPER NUMBER
2685	

DATE MAILED: 08/23/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/737,033	MANTYJARVI ET AL.	
	Examiner	Art Unit	
	Nhan T. Le	2685	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *25 May 2005*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1,3-26,28,30 and 31* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1,3-26,28,30 and 31* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 05/25/05 has been entered.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

1. Claims 1, 3-5, 8, 9, 11-14, 17, 18, 20, 22-26, 28, 30, 31 are rejected under 35 U.S.C. 103(a) as being unpatentable over Davis (US 6,292,674) in view of Boesen (US 6,560,468)

As to claims 1, 26, 28, 30, 31 Davis teaches a terminal for a communication system, the terminal comprising a first detector arrangement (see fig. 4, numbers 406, col. 5, line 67) and a second detector arrangement (see fig. 4, number 408, col. 6, lines 1-4), the first and second detector arrangements of detecting a contact between at least one surface of the terminal and the skin of the user of the terminal (see col. 6, lines 1-5), wherein at least one function of the terminal is controlled based on signals from the first and second detector arrangements (see col. 4, lines 32-37), wherein a control operation

is provided if at least one of the first and second detector arrangements output a signal that indicates a contact between the terminal and the skin of the user (see col. 6, lines 1-5). However, Davis fails to teach the detector arrangements (sensors) being based on different principles of detecting a contact between at least one surface of the terminal and the skin of the user of the terminal and wherein a control operation is provided only if the first and second detector arrangements both output a signal that indicates a contact between the terminal and the skin of the user. Boesen teaches the first and second detector arrangements being based on different principles of detecting a contact between at least one surface of the terminal and the skin of the user of the terminal, wherein a control operation is provided only if the first and second detector arrangements both output a signal that indicates a contact between the terminal and the skin of the user (see fig. 2, numbers 22, 46, col. 3, lines 16-67, col. 4, lines 1-6). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the teaching of Boesen into the system of Davis in order to transmit RF signals between the devices.

As to claim 3, the combination of Davis and Boesen teaches the terminal according to claim 1 comprising a controller for controlling the at least one function of the terminal (see Davis fig. 1, number 22, col. 1, lines 45-55, col. 6, lines 1-5).

As to claim to claim 4, the combination of Davis and Boesen teaches the terminal according to claim 1, wherein switching between different modes of operation of the terminal is arranged to be triggered based on signals from the detector arrangements (see Davis col. 1, lines 45-55).

As to claim 5, the combination of Davis and Boesen teaches the terminal according to claim 4, wherein the terminal is switched between a standby mode and an active mode (see Davis fig. 8, numbers 800, 806, col. 7, lines 18-26).

As to claim 8, the combination of Davis and Boesen teaches the terminal according to claim 1, wherein the operation of an alarm producing means is controlled based on signals from the detector arrangements (see Davis fig. 8, number 810, col. 7, lines 32-37).

As to claim 9, the combination of Davis and Boesen teaches the terminal according to claim 1, wherein the detector arrangements are arranged to sense a contact between the terminal and the hand of the user (see Davis fig. 4, numbers 406, 408, col. 5, lines 65-67, col. 6, lines 1-5).

As to claims 11, 12, the combination of Davis and Boesen teaches the terminal according to claim 1, wherein one of the detector arrangements comprises a galvanic skin response detection arrangement, which is adapted to detect a gripping pressure caused by the hand of the user of the terminal (see Davis fig. 2, numbers 208, 210, col. 5, lines 29-50).

As to claim 13, the combination of Davis and Boesen teaches the terminal according to claim 1, wherein one of the detector arrangements is arranged to detect a pressure caused by the hand of the user (see Davis fig. 2, numbers 208, 210, col. 5, lines 29-50).

As to claim 14, the combination of Davis and Boesen teaches the terminal according to claim 13, wherein a predefined pressure pattern is arranged to be detected (see Davis col. 6, lines 65-67, col. 7, lines 1-14).

As to claim 17, the combination of Davis and Boesen teaches the terminal according to claim 1, wherein at least a part of at least one detector arrangement is provided in a detachable part of the terminal (see Davis fig. 2, number 204, col. 5, lines 29-32).

As to claim 18, the combination of Davis and Boesen teaches the terminal according to claim 1, wherein at least one of the detector arrangements is integrated in the cover material of the terminal (see Davis fig. 2, numbers 208, 210, col. 5, lines 28-35).

As to claim 20, the combination of Davis and Boesen teaches the terminal according to claim 1, wherein the control of the function is based on adaptive use of the information provided by the signals from the detector arrangements (see col. 4, lines 32-37).

As to claim 22, the combination of Davis and Boesen teaches the terminal according to claim 3, wherein the controller is adjustable so that the controller provides different control instructions for the function controlled by the controller depending on the settings of the controller (see Davis col. 4, lines 27-37).

As to clam 23, the combination of Davis and Boesen teaches the terminal according to claim 1, wherein the control of the function is based, in addition to signals from the detector arrangements, on temperature (see Davis col. 6, 1-5).

As to claim 24, the combination of Davis and Boesen teaches the terminal according to claim 1, wherein at least one of the detector arrangements is provided in a handset or headset of the terminal (see Davis fig. 4, numbers 406, 408, col. 5, lines 65-67, col. 6, lines 1-5).

As to claim 25, the combination of Davis and Boesen teaches the terminal according to claim 1, wherein the terminal comprises a mobile station of a radio communication system (see Davis abstract).

2. Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Davis (US 6,292,674) in view of Boesen (US 5,802,467) and further in view of Cairns (US 5,930,703).

As to claim 6, the combination of Davis and Boesen teaches the terminal according to claim 1, wherein a keypad of the terminal is operated based on signals from the detector arrangements (see Davis col. 7, lines 15-31). However, the combination of Davis and Boesen fails to teach a keypad lock. Cairns teaches the keypad lock (see col. 4, line 55- col. 5, line 3). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the teaching of Cairns into the system of Davis and Boesen in order to prevent unauthorized users from operating the device.

3. Claims 7, 10, 15, 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Davis (US 6,292,674) in view of Boesen (US 6,560,468) and further in view of Giel (US 5,881,377).

As to claims 7, 10, 15, the combination of Davis and Boesen fails to teach the terminal according to claim 1, wherein the operation of a display of the terminal is controlled based on signals from the detector arrangements; the detector arrangements are arranged to sense a contact between the terminal and the cheek and/or ear of the user, the detector arrangements comprises a capacitive proximity sensor. Giel teaches

the terminal, wherein the operation of a display of the terminal is controlled based on signals from the detector arrangements (see col. 5, lines 12-23); the detector arrangements are arranged to sense a contact between the terminal and the cheek and/or ear of the user (see col. 5, lines 5-11), the detector arrangements comprises a capacitive proximity sensor (see col. 5, lines 5-11). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the teaching of Giel into the system of Davis and Boesen in order to save terminal power (see col.6, lines 19-38 as suggested by Giel).

As to claim 16, the combination of Davis, Boesen and Giel teaches the capacity sensitivity sensor inside the terminal (see col. 5, lines 5-11). However, Giel fails to teach the capacitive proximity sensor is placed on the inner surface of a cover of the terminal or an accessory thereof. However, the above reference would not render the claim patentable over Davis, Boesen and Giel, because it would merely depend on where to place the capacity proximity sensor in the phone. Therefore, it would have been obvious to one of ordinary skill in the art to modify the combination of Davis, Boesen and Giel such that the capacity proximity sensor is placed on the inner surface cover of the phone so that the proximity could be more easily detected.

4. Claim 19 is rejected under 35 U.S.C. 103(a) as being unpatentable over Davis (US 6,292,674) in view of Boesen (US 6,560,468) and further in view of Budd (US 6,360,104).

As to claim 19, the combination of Davis and Boesen fails to teach the terminal according to claim 1, wherein at least one of the detector arrangements comprises at

least three sensor elements, the at least three sensor elements being arranged in an array on the surface of the terminal. Budd teaches the terminal, wherein at least one of the detector arrangements comprises at least three sensor elements, the at least three sensor elements being arranged in an array on the surface of the terminal (see fig. 5, numbers 140, 142, col. 5, lines 33-45). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the teaching of Budd into the system of Davis and Boesen in order to detect user's holding regardless of the actual location of user's finger (see col. 5, lines 40-45, as suggested by Budd).

Claim 21 is rejected under 35 U.S.C. 103(a) as being unpatentable over Davis (US 6,292,674) in view of Boesen (US 6,560,468) and further in view of Nakajima (US 5,740,523).

As to claim 21, the combination of Davis and Boesen fails to teach the terminal according to claim 1, wherein the sensitivity of at least one of the detector arrangements is adjustable. Nakajima teaches the terminal, wherein the sensitivity of at least one of the detector arrangements is adjustable (see col. 13, lines 23-33). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the teaching of Nakajima into the system of Davis and Boesen in order to achieve the detection sensitivity within the range of the tolerance of the electrical component (see col. 13, lines 33-38, as suggested by Nakajima).

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Boesen (US 2001/0027121) teaches cellular telephone, personal digital assistant and pager unit.

Boesen (US 2005/0043056) teaches cellular telephone and personal digital assistant.

Fukumoto et al (US 6,912,287) teaches wearable communication device.

Shindo (US 5,818,701) teaches portable telephone having a reversible and sliding card casing.

Bieback et al (US 6,121,881) teaches protective mask communication devices and systems for use in hazardous environments.

Norimatsu (US 5,329,577) teaches telephone having sensor for responding to a call.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Nhan T Le whose telephone number is 571-272-7892. The examiner can normally be reached on 08:00-05:00 (Mon-Fri).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Edward Urban can be reached on 571-272-7899. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Nhan Le

8-18-2005

NGUYEN T. VO
PRIMARY EXAMINER